
Reed College Chemical Fume Hood Program

June 2024



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2.0 Responsibilit







9DUDEΘ\$ LU9RXP H+RRGV

Variable Air Volume (VAV) Hoods maintain a constant face velocity regardless of sash position. The system continuously measures the amount of air exhausted to maintain a constant face velocity. A VAV system increases the ability of the hood to protect the worker from the possibility of exposure to chemical fumes.

3.2 Specialty Exhaust Systems

%LRQJ LFDC6 DIHW & DELQHW

Biological Safety Cabinet is not a laboratory hood and is considered to be a special safety enclosure used to handle and contain pathogenic microorganisms. The cabinet is designed to protect the product and also provides limited protection for lab personnel by utilizing an inward airflow away from the employee. Biological Safety Cabinets must be National Sanitation Foundation (NSF Standard 49) certified for Class II, Type A2 Biological Safety Cabinets and bear the NSF seal.

/ DP LQDU) QZ & DELQHW

Laminar Flow Cabinets are not considered laboratory hoods and do not provide any protection for lab personnel and are intended to provide a clean airflow for the product protection. It is typically a ventilated, partially enclosed cabinet with airflow over the work surface.

&DQRS\ +RRGV

Canopy Hoods have an enclosed horizontal duct suspended above a work area that is too large to be contained in a conventional hood. The disadvantage of the hood is it draws contaminants past the workers breathing zone.

* QYHV %R[HV

Glove box is used when toxicity, radioactivity or reactivity is too great a hazard for work in a conventional hood. The greatest advantage of the glove box is worker protection.

4.0 References

ANSI/ASHRAE 110, Method of Testing Performance of Laboratory Fume Hoods
ANSI Z9.5 Laboratory Ventilation

